

CLAIMS:

1. A method of recovering a constituent of a board material comprised of a matrix of adhesively bonded lignocellulosic elements, the method comprising subjecting the material to a combination of (i) electromagnetic radiation and (ii) soaking or immersion in a liquid medium, and recovering the constituent.
- 10 2. A method as claimed in claim 1, wherein the electromagnetic radiation has a frequency in the range of from 100 kHz to 300 GHz.
- 15 3. A method as claimed in claim 1 or claim 2, wherein the electromagnetic radiation has a frequency in the range of from 10 MHz to 300 GHz.
- 20 4. A method as claimed in any one claims 1 to 3, wherein the electromagnetic radiation has a frequency in the range of from 896 ± 20 MHz to 2450 ± 25 MHz.
- 25 5. A method as claimed in claim 4, wherein the electromagnetic radiation has a frequency of 896 ± 20 MHz.
6. A method as claimed in claim 4, wherein the electromagnetic radiation has a frequency of 2450 ± 25 MHz.
- 30 7. A method as claimed in any one of claims 1 to 3, wherein the electromagnetic radiation has a frequency in the range of from 10 MHz to 50 MHz.

- 13 -

8. A method as claimed in claim 1 or claim 2, wherein the electromagnetic radiation has a frequency in the range of from 100 kHz to 100 MHz.

5 9. A method as claimed in any of claims 1 to 8, wherein the power of the electromagnetic radiation is in the range of from 500 W to 30 kW.

10. A method as claimed in any of claims 1 to 9,-
10 wherein the liquid medium comprises water.

11. A method as claimed in any one of claims 1 to 9, wherein the liquid medium comprises an organic or inorganic solvent.

15 12. A method as claimed in any of claims 1 to 11, wherein the board material is initially subjected to the electromagnetic radiation (step (i)) and then immersed in the liquid medium (step (ii)).

20 13. A method as claimed in any one of claims 1 to 12, wherein the liquid medium is at elevated temperature.

25 14. A method as claimed in claim 13, wherein the liquid medium is at a temperature of from 60° to 90°C. '.

30 15. A method as claimed in any one of claims 1 to 11, wherein the board material is immersed in the liquid medium and subjected to the electromagnetic radiation while immersed.

- 14 -

16. A method as claimed in any one of claim 1 to 15, wherein the treated board material is subjected to mechanical agitation in the liquid medium to produce a fibrous suspension.

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17. A method as claimed in claim 16, wherein lignocellulose is recovered from the fibrous suspension.

18. A method as claimed in claim 17, wherein the lignocellulose is recovered by drying of the suspension.

19. A method as claimed in any of claims 1 to 18, wherein the lignocellulose based board is or comprises a particle board or fibre board.

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20. A method as claimed in claim 19, wherein the lignocellulose based board is or comprises Medium Density Fibreboard.

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21. A method as claimed in claim 1, wherein the electromagnetic radiation comprises microwaves.

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22. A method as claimed in claim 1, wherein the electromagnetic radiation comprises radio frequency (RF) waves.

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